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Docket: EPA-HQ-SFUND-2008-0577
National Priorities List, Notice of Proposed Rulemaking; U.S. Smelter and Lead Refinery, Inc.

Comment On: EPA-HQ-SFUND-2008-0577-0001
National Priorities List, Proposed Rule No. 49

Document: EPA-HQ-SFUND-2008-0577-0005
Comment submitted by Theresa Snead, Legal Secretary to Robert N. Steinwurtzel, Bingham McCutchen LLP on behalf of U.S. Smelter and Lead Refinery, Inc.

Submitter Information

General Comment

Please see the attachments

Attachments

EPA-HQ-SFUND-2008-0577-0005	Comment submitted by Theresa Snead, Legal Secretary to Robert N. Steinwurtzel, Bingham McCutchen LLP on behalf of U.S. Smelter and Lead Refinery, Inc.
EPA-HQ-SFUND-2008-0577-0005.1	Comment attachment submitted by Theresa Snead, Legal Secretary to Robert N. Steinwurtzel, Bingham McCutchen LLP on behalf of U.S. Smelter and Lead Refinery, Inc.

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To Docket Superfund@EPA

cc

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10/31/2008 11:08 AM

Subject USSLeadCommentsRule49.pdf

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Attached please find USS Lead's comments on EPA's Proposed Rule No. 49. Please advise as soon as possible if you have any problems opening the attached document.

Thank you.

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October 31, 2008

Via Email - superfund.Docket@epa.gov
and First Class Mail

Docket Coordinator, Headquarters
U.S. Environmental Protection Agency ("EPA")
CERCLA Docket Office (Mail Code 5305T)
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Re: EPA-HQ-SFUND-2008-0577
U.S. Smelter and Lead Refinery, Inc., East Chicago, Indiana

Dear Sir or Madam:

On behalf of U.S. Smelter and Lead Refinery, Inc. ("USS Lead"), we hereby submit comments in response to EPA's Proposed Rule No. 49 which seeks to list the USS Lead site on the National Priorities List ("NPL") pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA"). Comments on Proposed Rule No. 49 must be postmarked on or before November 3, 2008. Therefore, these comments are being submitted on a timely basis.

USS Lead retained Gradient Corporation, located in Cambridge, Massachusetts, to review the docket for Proposed Rule No. 49. Based upon that review and a visit to the USS Lead site, Gradient has prepared comments on behalf of USS Lead. Those comments are attached hereto and incorporated herein.

As demonstrated in the attached comments, the record does not support EPA's proposed listing. The scoring utilized by EPA to support its action contains significant errors, is contradicted by other documents in the record, and fails to consider current conditions at the USS Lead site. Furthermore, it appears that EPA is attempting to justify the proposed listing on the NPL based, in part, upon a ranking determination that is nearly 20 years old as supplemented with a few recently compiled sample results.

In addition, EPA fails to account for the fact that the USS Lead site is currently subject to a RCRA corrective action order and that the facility has been conducting remedial action pursuant to that order. Thus, contrary to agency policy, the proposed listing, if finalized, will subject the facility to conflicting and concurrent regulatory authorities.

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Pursuant to the RCRA order, USS Lead undertook closure of three hazardous waste piles, and consolidated contaminated soils and debris into a Corrective Action Management Unit ("CAMU") built on-site. A slurry wall was constructed around the CAMU area and an engineered cover was installed over the CAMU. A long-term groundwater monitoring system was also established to monitor potential releases attributable to the CAMU. All these actions were conducted at the direction and approval of EPA and the Indiana Department of Environmental Management ("IDEM").

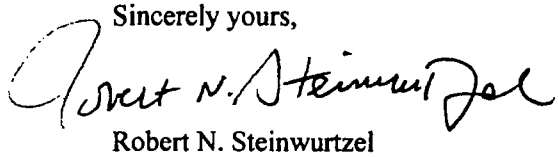
Furthermore, an impacted canal located on the USS Lead site was remediated pursuant to the RCRA order. Contaminated sediments from the canal were excavated and placed in the CAMU, and the canal was reconfigured to prevent potential releases from the site into the adjacent Grand Calumet River.

The proposed listing, however, does not account for these corrective actions nor does it acknowledge the fact that much of the site has been subject to remedial action pursuant to EPA oversight and approval. The USS Lead site remains subject to a RCRA order that provides authority to allow EPA to determine what environmental risks, if any, remain after implementation of the remedial actions conducted pursuant to the order.

Lastly, if EPA proceeds forward with the listing, such action should be limited to those portions of the site that have not been remediated and still present potential risks to the environment. Any listing should not extend to include residences located nearby the facility but are not contiguous to USS Lead. Such residences have not been considered as part of the Hazard Ranking System ("HRS") for the site. In addition, there are a number of other potential parties, other than USS Lead, who may be responsible for the impacts to the residences. In an email dated June 9, 2008, IDEM representative Mark Jaworski identified five other facilities that conducted lead operations nearby the residences.

In conclusion, USS Lead contends that the HRS package relied upon by EPA is fundamentally flawed and cannot be relied upon to justify the listing of the site on the NPL. EPA must withdraw its proposal and if it wishes to proceed notwithstanding the existence of the RCRA order, the agency has to rescore the site using legally supportable criteria taking into current site conditions.

Sincerely yours,



Robert N. Steinwurtzel

Attachment

U.S. Smelter and Lead Refinery, Inc.
Comments on USEPA HRS Package
Docket ID: EPA–HQ–SFUND–2008–0577
October 29, 2008

The U.S. Smelter and Lead Refinery, Inc. (USS Lead) site in East Chicago, Indiana was proposed for the National Priorities List (NPL) on September 3, 2008 (USEPA, 2008). These comments on the USEPA Hazard Ranking System (HRS) package (dated September 2008) were prepared by Gradient Corporation (Gradient) on behalf of USS Lead. Gradient personnel conducted a site visit in September, 2008; thus these comments are based on first-hand observations.

Gradient's comments on the HRS package are summarized in the following points, which are then discussed in further detail in these comments:

- One of the two pathways contributing to the HRS score in the HRS document is air migration. However, there is currently no source of contamination to air; therefore, this pathway should not be scored.
- The 1999 Documentation of Environmental Indicator (EI) Determination under the RCRA program concluded that neither outdoor nor indoor air are contaminated. This determination contradicts the HRS which scores the site in part on the air pathway. The EI document also determines that there are no complete exposure pathways to residents, for any media.
- The air migration pathway section in the 2008 HRS has many similarities with the 1991 HRS document, indicating that the HRS was not updated to account for current, post-remediation site conditions.
- In the surface water pathway, the other pathway contributing to the HRS score, the analyte used for the ecosystem toxicity factor should be consistent with that used for the sensitive environments score. Cadmium should not have been used as the basis for the ecosystem toxicity factor, because cadmium was not present in year 2008 in wetland sediment at levels greater than three times background.
- The HRS soil exposure pathway cites incorrect data that are too high by a factor of ten, and incorrectly categorizes certain locations as residential. This information also appears to have been based on the 1991 HRS document without review for accuracy or current relevance.

Section numbers in this document refer to the section numbers of the HRS document.

6.0 Air Migration Pathway

The air migration pathway is one of the two pathways contributing to the proposed HRS score. The air pathway is scored using site conditions that existed in 1985, when the site was an operating facility. However, large portions of the site have since been remediated, and the facility has been dismantled and removed. Thus, under current site conditions, there is no source of contamination to air, and the air pathway should not be scored. Removal of the air migration pathway would decrease the HRS score by nearly 50%, from 58.31 to 30. If EPA scored all sites based on past, rather than current, conditions, then no remediated site could ever be removed from the NPL.

Remediation of a large portion of the site was completed under the RCRA program by November, 2002. Waste materials from the remediation effort were placed in an 11-acre Corrective Action Management Unit (CAMU) constructed on the site. Waste material consolidated in the CAMU consisted of former site buildings, blast furnace slag, battery chips, lead contaminated soil, and contaminated sediment from an on-site canal (stabilized with lime). Baghouse dust and calcium sulfate sludge from the waste piles were transported off-site for proper disposal. The CAMU is covered by an engineered cap consisting of several layers including a cushion layer of compacted sand; a geocomposite membrane (synthetic clay layer covered by a high density polyethylene liner); and a 36-inch sand cover layer planted with native grasses. The CAMU cap prevents rainwater from infiltrating into the waste placed inside the CAMU. (USEPA, 2007). The CAMU sits approximately 30 feet high, with graded sides, and is covered with tall grass. After the site remediation, and construction of the CAMU, there were no buildings or waste piles left on the site. There are currently no waste materials present at the ground surface that could generate dust that could migrate offsite *via* the air pathway. Although the HRS document acknowledges the construction of the CAMU (see page 19), and consolidation of soils in the CAMU (see page 20), its presence and effect on the environment is not credited in the development of the score. Since the site does not currently pose a threat of release *via* the air pathway, this pathway should not be scored. The HRS score for a site proposed for the NPL in 2008 should reflect actual site conditions in 2008, not 1985.

USEPA's Documentation of Environmental Indicator (EI) Determination under the RCRA program (USEPA, 1999; Ref. 79) concluded that neither outdoor nor indoor air are contaminated. Site conditions have not changed since 1999 in any way that would change the conclusions of the EI determination. Part 2 of the EI document notes that outdoor air is <u>not</u> known or reasonably suspected to be contaminated above risk based levels from releases subject to RCRA corrective action. Part 2.E provides the rationale for this conclusion: "All buildings at the site have been demolished. Also, the CAMU cover prevents any

migration of particulate from contamination sources into outdoor air. Constituents present in groundwater at this site do not volatilize significantly and, therefore, do not pose risk through inhalation." In evaluating potential human receptors, Part 3 of the EI has the indoor and outdoor air pathways crossed out, and lists no receptors for outdoor air; thus EPA concluded in 1999 that air was not a complete exposure pathway. This determination contradicts the HRS which scores the site, in large part, on the outdoor air pathway. The EI document also determines that there are no complete exposure pathways to residents, for any media (see Part 3 of the EI document).

6.1.1 Observed release by direct observation and chemical analysis

Direct Observation: This section discusses observations made during an inspection of the site in April, 1985 (Ref. 15). Since all facility operations ceased in December, 1985 (Ref. 22), we conclude that the inspection was conducted when the facility was still in operation. The inspection noted that in 1985, there were piles of waste material generating dust, and that dust was being blown offsite. However, as noted above, there are no piles of slag or other waste materials left on the site in 2008, because the site has been remediated. All waste materials, including the slag pile, were either removed from the site or placed inside the CAMU prior to November, 2002. The site as it exists today is completely vegetated, with no areas of bare soil or blowing dust.[1] The observations of dust from 1985 are not relevant for scoring the potential release of airborne contaminants from the site today.

Chemical Analysis: The HRS presents air lead data collected in 1985, where the downwind sample, collected just outside the northeast corner of the site, contained lead at 38.187 $\mu g/m^3$, and the background sample, collected just south of the site, contained 0.375 $\mu g/m^3$ (Ref. 14). The HRS concludes that there has been an observed release *via* the air pathway. While there may have been an observed release in 1985, the site conditions that may have led to such a release no longer exist in 2008. The offsite release is attributed by EPA to the site by "the presence of the slag waste pile, flue dust and battery casings" located on the site (Ref. 14). However, any waste materials that may have generated dust emissions in 1985 are no longer present on the site. Due to the site remediation completed in 2002 under RCRA, the site currently has no waste material at the ground surface that could cause an observed release, or even a threat of release, *via* the air pathway. For this reason, the air pathway should not be scored.

[1] The site is more vegetated than it appears in the 2008 Google Earth aerial photograph, used for Figure 2-4 in the HRS document. See for example, the 2008 aerial photo available at Microsoft Virtual Earth™ :
http://maps.live.com/#JndoZXJlMT01MzAwK2tlbm5lZHkrYXZlJTJjK2Vhc3QrY2hpY2FnbyUyYytJTiZiYj02MC4zNzA0Mjkwd MTYzMTUxJTdlLTMyLjUxOTUzMTI1JTdlMTYuNTUxOTYxNzIxOTcyNSU3ZS0xMTAuMDM5MDYyNQ==

6.3 Targets

Based on the 1985 air lead sample collected 0.25 mile northeast of the site, the HRS considers all targets within 0.25 mile of the site as Level I targets "subject to actual contamination" (*i.e.*, air lead levels above the NAAQS of 1.5 $\mu g/m^3$), and targets located between 0.25 mile and 4 miles from the site as Level II targets "subject to potential contamination".

The HRS fails to acknowledge that in 2008, there are no receptors within 4 miles of the site that are subject to either actual or potential air lead concentrations above 1.5 $\mu g/m^3$. The site has been remediated, thus it is not generating any air emissions of lead or any other hazardous material, nor does it have the potential to generate such emissions. Therefore, the population within 4 miles of the site (documented in Ref. 49) is completely irrelevant, as the true population subject to either actual or potential air lead levels above 1.5 $\mu g/m^3$ is zero. Given the remediated condition of the site, it is misleading and erroneous for the HRS to propose that any member of the nearby population is, or could be, subject to air lead levels above the NAAQS in 2008. All of the scores under Section 6.3, and subsections, should be zero.

To provide an example of current air lead concentrations near the site, we obtained air lead data from EPA's Air Quality System (AQS) database for four monitors in Lake County, Indiana (where USS Lead is located). Two monitors are located 2.7 miles from the site, and two monitors are located 3.8 miles from the site, thus all four are within the 4 mile radius considered in the HRS. The quarterly average air lead levels, for 2006 to 2008, range from 0.01 to 0.10 $\mu g/m^3$, with an average quarterly average (for all monitors, all 3 years) of 0.03 $\mu g/m^3$. Air lead levels in this area are clearly well below the NAAQS of 1.5 $\mu g/m^3$, and the revised NAAQS of 0.15 $\mu g/m^3$.[2]

Similarities between the 1991 HRS and 2008 HRS Documents

The air migration pathway section in the 2008 HRS document has many similarities with the 1991 HRS document, and much of the 1991 text is included in the 2008 version. This suggests that the scoring for the air pathway was not updated to account for the large scale site remediation and CAMU construction that was completed in 2002. The 2008 document did, however, update the Hazardous Waste Quantity to

[2] *EPA revised the Lead NAAQS from 1.5 $\mu g/m^3$ to 0.15 $\mu g/m^3$ on October 15, 2008.* http://epa.gov/air/lead/pdfs/20081015pbfactsheet.pdf

"unknown", because EPA acknowledges that "although the majority of the slag pile has been remediated, ... residual material still remains."

4.1.4 Environmental Threat

The chemicals used to score the various sections of the surface water pathway are not consistent. Section 4.1.4.2.1 selected cadmium as the chemical with the highest ecosystem toxicity factor value (10,000), and notes that Source 2 (the wastewater discharge) was the source of cadmium. However, the HRS acknowledges (page 36) that although cadmium was released from Source 2 in 1984 and 1985, "current analytical data does not show these past releases" of cadmium. [EPA does not provide a reference that supports this statement.] The IDEM Expanded Site Report (2008) collected 14 wetland sediments and did not find cadmium concentrations greater than three times the highest background concentration of 11.6 mg/kg (Ref. 64). Regardless of any cadmium releases that occurred in 1985, the site should be scored using data that reflect current site conditions. Since the current analytical data do not show evidence of cadmium concentrations greater than three times the highest background in the wetland, cadmium should not be used as the basis for determining the ecosystem toxicity factor.

Section 4.1.4.3.1.2 determines the wetland frontage subject to Level II concentrations based on three sediment samples (ME2PF4, ME2PF5, and MEPG0) that meet the requirements of an observed release, in that they have lead concentrations greater than three times background (Ref. 64: IDEM Expanded Site Report, 2008). If lead is the constituent that is used to document the observed release, and the size of the wetland affected by Level II concentrations, then lead should also be used as the basis for the ecosystem toxicity factor. Since the Waste Characteristics and Targets scores are multiplied together in calculating the Environmental Threat score, the analyte used for the ecosystem toxicity factor should be consistent with that used for the sensitive environments score.

2.2 Source Characterization

One of the two sources used to score the site is a slag waste pile (Source 1). Section 2.2.1 notes that the slag pile (Source 1) was excavated and placed into the onsite CAMU. Figure 2-4 in the HRS document shows the former location of the slag waste pile, and the standing water left when the pile was excavated. The slag pile no longer represents an ongoing release (or threat of release) of contamination to the wetland because it has been removed. In total, approximately 284,000 cubic yards of material were removed and consolidated in the CAMU (Ref. 38; Modified RFI Report, Section 2.8).

Soil Exposure Pathway Cites Incorrect Data - [no section number in HRS]

Under the soil exposure pathway (p. 40), certain soil data cited by EPA are incorrect. The HRS states:

> In 1985, EPA conducted a lead soil survey where 19 lead soil samples were taken in areas surrounding USS Lead. At six of these locations, the lead levels were greater than or equal to 11,000 mg/kg. Four of these samples were to the north-northeast in residential areas directly north of USS Lead (Ref. 68, p. 12).

The 11,000 mg/kg in this sentence is incorrect and should be changed to 1,100 mg/kg. The incorrect information was taken from Reference 68, the 1993 AOC, which incorrectly describes both the concentrations and the location of the soil samples. The original 1985 Inspection Report (Ref. 32) states on page 2: "The lead levels ranged from 100 mg/kg at point 11U to 11,000 mg/kg at point 12U with six locations containing lead levels [above] 1,100 mg/kg". Of the four locations described in the 1993 AOC as "residential", only one (sample 4U) is possibly residential, while the others are 1) on the DuPont property east of the site, 2) by an abandoned gas station, and 3) by the railroad tracks between the USS Lead and DuPont properties.

References

USEPA. 2007. USEPA Region 5 and IDEM. Fact Sheet, USS Lead, East Chicago, Indiana. October. Downloaded from http://www.epa.gov/region5/sites/usslead/pdfs/usslead-joint-factsheet-200710.pdf

USEPA. 2008. Federal Register. Vol. 73, No. 171. National Priorities List, Proposed Rule No. 49. September 3.

HRS Ref. No.	Document
Ref. 14	Indiana State Board of Health. 1985. Fugitive Dust Test Report in Vicinity of USS Lead Refinery. September 16.
Ref. 15	Indiana State Board of Health. 1985. Field Inspection Report, USS Lead Refinery. May 7.
Ref. 22	Resource Consultants. 1990. Site Assessment Plan. USS Lead Refinery. August 3.
Ref. 32	USEPA. 1985. Inspection Report. USS Lead Refinery. October 15.
Ref. 38	Geochemical Solutions. 2004. Draft Final Modified RCRA Facility Investigation (MRFI) Report. March.
Ref. 49	Indiana Department of Environmental Management (IDEM). 2008. Memo re: HRS Potentially Exposed Population for Air Pathway, and Distance from USS Lead. August 7.
Ref. 64	Indiana Department of Environmental Management (IDEM). 2008. Expanded Site Inspection Report. April.
Ref. 68	USEPA. 1993. Administrative Order On Consent (AOC). USS Lead. V-W-001-84. November 18.
Ref. 79	USEPA. 1999. Documentation of Environmental Indicator (EI) Determination. Interim Final. USS Lead Refinery, Inc. February 5.